

INTERNATIONAL SEARCH REPORT

Int'l Application No

PCT/GB 03/04585

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 D21F1/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 D21F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 962 589 A (TAMFELT OYJ ABP) 8 December 1999 (1999-12-08) cited in the application paragraph '0014! - paragraph '0016! figures 3A-3I ---	1-6, 15-17, 21
X	US 4 941 514 A (TAIPALE SEppo) 17 July 1990 (1990-07-17) column 1, line 63 -column 2, line 59 figure 1 ---	1-5, 17, 21
X	DE 86 21 843 U (CARL WEIT GMBH) 9 October 1986 (1986-10-09) page 4, paragraph 5 -page 5, paragraph 4 figures ---	1-3, 5, 7, 8
Y	---	9 -/-

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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Date of the actual completion of the international search

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PCT/GB 03/04585

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 675 229 A (WESTHEAD WILLIAM T) 23 June 1987 (1987-06-23) column 5, line 36 -column 9, line 65 figures 6,7	1,2,13, 15,16
Y	---	9
X	WO 99 18282 A (ALLUM ANDREW ;SCAPA GROUP PLC (GB)) 15 April 1999 (1999-04-15) page 2, line 9 -page 5, line 1 page 5, line 20 -page 10, line 12 figures	1-5, 11-16
X	US 4 867 206 A (KUFFERATH FRANZ F) 19 September 1989 (1989-09-19) column 3, line 4 -column 4, line 65 figures	1,2,13, 17-19
X	US 6 057 255 A (GASS MICHAEL) 2 May 2000 (2000-05-02) column 5, line 1 - line 5 column 8, line 19 - line 67 figure	1,2,5, 12-15, 17,21, 26,28,29
X	US 4 112 586 A (LEHTINEN JUKKA A) 12 September 1978 (1978-09-12) column 4, line 63 -column 5, line 22 figures 1,5,6	1-3,5
Y	---	22-25
Y	GB 995 620 A (HEIMBACH GMBH THOMAS JOSEF) 23 June 1965 (1965-06-23) page 2, line 38 - line 77 figures 1,11,13	22-25

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Int'l Application No

PCT/GB 03/04585

Patent document cited in search report	Publication date		Patent family member(s)	Publication date
EP 0962589	A 08-12-1999	FI AT DE EP US	103682 B1 249546 T 69911114 D1 0962589 A2 6094834 A	13-08-1999 15-09-2003 16-10-2003 08-12-1999 01-08-2000
US 4941514	A 17-07-1990	FI CA	870537 A 1294809 C	11-08-1988 28-01-1992
DE 8621843	U 09-10-1986	DE	8621843 U1	09-10-1986
US 4675229	A 23-06-1987	CA	1303544 C	16-06-1992
WO 9918282	A 15-04-1999	AU CA EP WO	9173198 A 2305719 A1 1023484 A1 9918282 A1	27-04-1999 15-04-1999 02-08-2000 15-04-1999
US 4867206	A 19-09-1989	DE AT AU AU BR CA DE EP ES FI JP MX NO PT US	3426264 A1 53870 T 575178 B2 4456985 A 8503111 A 1272631 A1 3577458 D1 0168718 A2 288128 U 852774 A , B, 61041394 A 161288 A 852839 A , B, 80813 A , B, 5056565 A	30-01-1986 15-06-1990 21-07-1988 23-01-1986 18-03-1986 14-08-1990 07-06-1990 22-01-1986 01-01-1986 18-01-1986 27-02-1986 29-08-1990 20-01-1986 01-08-1985 15-10-1991
US 6057255	A 02-05-2000	EP AT AU AU BR CA CZ DE DK WO EP ES GR NO PL PT SI SK TR ZA	0786550 A1 189016 T 696610 B2 1444597 A 9704636 A 2213841 A1 9702996 A3 59604227 D1 786550 T3 9727362 A1 0817886 A1 2144162 T3 3032802 T3 974421 A 322383 A1 786550 T 817886 T1 130097 A3 9701032 T1 9700598 A	30-07-1997 15-02-2000 17-09-1998 20-08-1997 09-06-1998 31-07-1997 17-12-1997 24-02-2000 26-06-2000 31-07-1997 14-01-1998 01-06-2000 30-06-2000 24-09-1997 19-01-1998 31-05-2000 30-06-2000 03-06-1998 21-12-1997 08-08-1997
US 4112586	A 12-09-1978	FI FI CA	753689 A 761516 A 1068103 A1	01-07-1977 29-11-1977 18-12-1979

INTERNATIONAL SEARCH REPORT

Inte
rnal Application No
PCT/GB 03/04585

Patent document cited in search report	Publication date		Patent family member(s)	Publication date
US 4112586	A		DE 2657041 A1 FI 781716 A ,B, GB 1502040 A IT 1065428 B JP 1078254 C JP 52085507 A JP 56021879 B SE 419661 B SE 7613800 A SE 443384 B SE 7901491 A	14-07-1977 30-05-1978 22-02-1978 25-02-1985 25-12-1981 15-07-1977 21-05-1981 17-08-1981 27-12-1976 24-02-1986 20-02-1979
GB 995620	A 23-06-1965	CH	392239 A FI 41797 B SE 306007 B	15-05-1965 31-10-1969 11-11-1968